CLAIMS

1. A water-absorbing agent, comprising a water-absorbing resin having a crosslinking structure constructed by polymerization of an unsaturated monomer component, wherein

the water-absorbing agent is surface-treated, and

the water-absorbing agent meets all of properties (1) through (4):

(1) heat retention indicator 1 (maximum temperature decrease per minute 5 to 10 minutes after 10 times swelling in a 0.90 wt. % sodium chloride at 50°C) is from 0 to 3.0°C/min;

(2) a centrifuge retention capacity in a 0.90 wt. % aqueous solution of sodium chloride (30 minute value) is 34 g/g or less;

(3) an absorbency in a 0.90 wt. % aqueous solution of sodium chloride against a pressure of 2.0 kPa (60 minute value) is less than 30 g/g; and

(4) a saline flow conductivity (SFC) for a 0.69 wt. % aqueous solution of sodium chloride is less than 20×10^{-7} cm^3sec/g.

2. The water-absorbing agent as set forth in claim 1, wherein

the water-absorbing agent is particles, and

the water-absorbing agent meets following conditions:

particles having diameters from 600 to 300 μm as specified by sieve classification account for 60 wt. % or more, and those less than 150 μm account for 3 wt. % or less; and

a standard deviation of logarithm ($\sigma\zeta$) of particle size distribution is from 0.250 to 0.400.

3. The water-absorbing agent as set forth in either one of claims 1 and 2, further comprising water-insoluble inorganic fine particles, besides the water-absorbing resin.

4. The water-absorbing agent as set forth in any one of claims 1 through 3, wherein a heat retention indicator 2 (gel surface temperature 10 minutes after 10 times swelling in a 0.90 wt. % sodium chloride at 50°C) is 20°C or higher.

5. The water-absorbing agent as set forth in any one of claims 1 through 4, wherein a heat retention indicator 3 (time taken by a gel surface temperature to return to 37°C after 10 times swelling in a 0.90 wt. % sodium chloride at 50°C) is 120 seconds or longer.

6. The water-absorbing agent as set forth in any one of claims 1 through 5, wherein a mass-average particle diameter (specified by sieve classification) is from 400 to 600 μm.

7. The water-absorbing agent as set forth in any one of claims 1 through 6, further comprising polyol, besides the water-absorbing resin.

8. An absorbent, comprising the water-absorbing agent as set forth in any one of claims 1 through 7 and hydrophilic fibers.

9. An absorbent article, comprising the absorbent as set forth in claim 8; a liquid-permeable top sheet; and a liquid-impermeable back sheet.

10. A method of manufacturing a water-absorbing agent containing a water-absorbing resin having a crosslinking structure constructed by polymerization of an unsaturated monomer component, comprising:

the polymerization step of polymerizing a monomer component containing an acid-group-containing unsaturated monomer as a major component to prepare a water-absorbing resin; and

the surface crosslinking treatment step of surface-crosslinking the water-absorbing resin obtained in the polymerization step,

wherein

in the polymerization step,

the water-absorbing resin is particles,

the water-absorbing resin has a centrifuge retention capacity of 35 g/g or more in 0.90 wt. % sodium chloride (30 minute value), and

the monomer component is polymerized so that the water-absorbing resin meets following conditions (1) and (2) on specific particle sizes:

(1) particles having diameters from 600 to 300 μm as specified by sieve classification account for 60 wt. % or more, and those less than 150 μm account for 3 wt. % or less; and

(2) a standard deviation of logarithm ($\sigma\zeta$) of particle size distribution is from 0.250 to 0.400.

in the surface crosslinking step, the water-absorbing resin meeting conditions (1) and (2) on specific particle sizes is surface crosslinked in a surface crosslinking treatment process.

11. The method as set forth in claim 10, wherein

in the surface crosslinking step,

the water-absorbing resin meeting conditions (1) and (2) on specific particle sizes in the polymerization step is surface-crosslinked until:

a centrifuge retention capacity in a 0.90 wt. % aqueous solution of sodium chloride (30 minute value) reaches 34 g/g or less; and

an absorbency in a 0.90 wt. % aqueous solution of sodium chloride against a pressure of 2.0 kPa (60 minute value) becomes less than 30 g/g.

12. The method as set forth in either one of claims 10 and 11, wherein the water-absorbing resin has a mass-average particle diameter of 400 μm to 600 μm.

13. The water-absorbing agent as set forth in any one of claims 1 through 7, wherein the unsaturated monomer is an acrylic acid (salt), and a ratio of a monomer other than the acrylic acid (salt) to the acrylic acid (salt) is 0 to 30 mole % inclusive.

14. The absorbent as set forth in claim 8, wherein the water-absorbing agent as set forth in any one of claims 1 through 7 accounts for 20 wt. % or more of a total of the water-absorbing agent and hydrophilic fibers.